



The following are CDM's comments on the HASP prepared by MWH to support the OU3 Phase 1 Sampling efforts:

- Section 1.0** Introduction: Paragraph 1 states the plan is for MWH employees only and not for Grace or Grace's other contractors. Will Grace and/or its subs be present on the mine during the execution of the SAP this fall? If so, will Grace need to submit their own HASP? What about subcontractors to MWH - will they also be submitting their own HASP?
- Section 2.0** Paragraph 2, Page 5 states no respiratory protection is needed for work beyond ridgeline of Grace's property boundary. This statement is inconsistent with statement in Section 8.1 Paragraph 4 that says bark samplers outside the mine property shall wear half-face respirators. Also, there is a statement that no respiratory protection beyond the ridgeline is needed based on stationary air monitoring data gathered during Sept 2007. CDM would recommend that this decision be based on a negative exposures assessment using personal air samples collected during each sampling task - it has been observed at the site the stationary air monitors underestimate personal exposure levels.
- Section 3.2.5** Site Visitors: CDM would recommend that all site visitors be required to attend an H&S Primer/Briefing prior to going within the exclusion zone at the mine.
- Section 3.2.6** Accident Reports: All accidents and incidents should also be reported in writing to either the Volpe representative, the EPA representative or the lead project H&S officer
- Section 4.2.1** Hazards Identified/Created by MWH: Notice of the hazards discussed in this section should also be communicated to Volpe, EPA or the lead H&S officer to ensure Volpe/EPA/CDM and removal contractors are aware of these hazards. There should be some level of formal communication about the activities that Volpe is performing on the mine property - hauling residential soils, traffic control, and communications. How with the MWH activities will be integrated with existing operations conducted on the mine road.
- Section 4.2.2** Hazards Identified/Created by third: Same as comment above.
- Section 5.1** Daily Tailgate meetings: Please indicated who is responsible for conducting, leading, logging these meeting.
- Section 7.2** Bears, mountain lions, and other or wild animals should be included as a site specific hazard



9/14/07
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SUBMITTED TO:

Clay Bock
MWH Americas, Inc.
175 W. Jackson Blvd.; Suite 1900
Chicago, IL 60510

REFERENCE DATA

Client Sample No.:	WRGN(M)9-12-07 through WRGBLANK
P.O. No.:	Not Available
Sample Location:	Montana
Sample Type:	MCE Filters
Method Reference:	Airborne Asbestos by TEM, EPA AHERA Enhanced Protocol (Level II)
DCL Set ID No.:	07-T-5200
DCL Sample ID No.:	07-30055 through 07-30058
Date Received:	9/14/2007
Preparation Date:	9/14/2007
Analysis Date:	9/14/2007

SAMPLING DATA


Filter Type: MCE, 0.8 μ m
Filter Size: 25 mm
Collection Area: 385 mm²

ANALYSIS DATA

Magnification: 15,900 X
Calibration Constant: 1 cm = 0.63 μ m
EDXA Resolution: 159.32 eV
Accelerating Voltage: 100 keV
Camera Constant: 31.97 mm-Å

We certify that the samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) for airborne asbestos using the enhanced AHERA protocol published in 40 CFR Part 763 dated October 30, 1987. Structure sizes were measured as described in the Yamate Level II method. Analysis was performed on a Philips CM-12 TEM with EDAX Genesis System providing energy dispersive X-ray analysis (EDXA) capabilities. If the sample set deviates from any AHERA requirements, interpretation of the results under strict EPA AHERA regulations cannot be made.

Results apply only to portions of samples analyzed and are tabulated on the following data sheet(s). Representative EDXA spectra and selected area electron diffraction (SAED) measurements of asbestos types detected are included. The analytical sensitivity (AS) for this method has been determined to be one asbestos structure in the total area analyzed. The area analyzed is dependent on the sample air volume. Concentrations in structures/mL are based on air volumes or times and flow rates provided by the client.


Angela Sohn
Analyst


Anna Marie Ristich
Reviewer

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WEST COAST OFFICE
11 SANTA YORMA COURT
NOVATO, CALIFORNIA 94945
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DataChem Laboratories TEM AHERA Test Report

DCL Sample Set ID: 07-T-5200

Client: MWH Americas, Inc.

Sample Location: Montana

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SAMPLE IDENTIFICATION				
Client ID:	WRGN(M)9-12-07	WRGE91207	WRGW91207	WRGBLANK
DCL ID:	07-30055	07-30056	07-30057	07-30058
Volume (L):	960.00	960.00	960.00	NA
No. Openings Analyzed:	8	8	8	10
Avg. Grid Opening Area:	0.0105	0.0105	0.0105	0.0105
RL (Structures/mm ²):	11.90	11.90	11.90	9.52
AS (Structures/mL):	0.0048	0.0048	0.0048	NA
Asbestos Structures <5 µm				
Chrysotile:	0	0	0	0
Amosite:	0	0	0	0
Crocidolite:	0	0	0	0
Actinolite-Tremolite:	0	0	0	0
Anthophyllite:	0	0	0	0
Total Asbestos <5 µm				
Count:	0	0	0	0
Structures/sq. mm:	<RL	<RL	<RL	<RL
Structures/mL:	<AS	<AS	<AS	NA
Asbestos Structures ≥ 5 µm				
Chrysotile:	0	0	0	0
Amosite:	0	0	0	0
Crocidolite:	0	0	0	0
Actinolite-Tremolite:	0	0	0	0
Anthophyllite:	0	0	0	0
Total Asbestos ≥ 5 µm				
Count:	0	0	0	0
Structures/mm ² :	<RL	<RL	<RL	<RL
Structures/mL:	<AS	<AS	<AS	NA
TOTAL ASBESTOS ALL SIZES				
Count:	0	0	0	0
Structures/mm ² :	<RL	<RL	<RL	<RL
Structures/mL:	<AS	<AS	<AS	NA
Total Non-asbestos Fibers:				
Count:	1	2	ND	ND
Types:	Fe-Al-Si	Cellulose Fe-Ca-Mg-Al-Si		

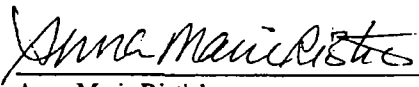
ND = None Detected

AS = Analytical Sensitivity

RL = Reporting Limit

Comments: None.


Angela Sohn
Analyst


Anna Marie Ristich
Reviewer

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**DATA
CHEM**
LABORATORIES, INC.

ANALYTICAL REQUEST FORM

☐ REGULAR Status (5 working days from receipt)

☒ RUSH Status Required - ADDITIONAL CHARGE

RESULTS REQUIRED BY _____ DATE _____

CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 9-13-07 Purchase Order No. _____

Company Name MWH Americas Inc.

Address 175 W. Jackson Blvd Suite
Chicago IL 60510
City State Zip

Person to Contact Clay Bock

Telephone (312) 831 3385

Fax Telephone () _____

Billing Address (if different from above)

Quote No. _____
STELLA HANIS
Project Manager

Sample Collection _____

Sampling Site Montana

Industrial Process Mining

Date of Collection 9-12-07

Time Collected 8 hours

Date of Shipment 9-13-07

QC Requirements ☒ Standard ☐ Other _____

Collector's Name Clayton Bock, CRES

Signature Clay Bock

REQUEST FOR ANALYSES

07-T-5200

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
30055	WAGN(M) 9-12-07	MCE 25	960	Asbestos TEM (AHERA)
30056	WRGE 9-12-07	MCE 25	960	Asbestos TEM (AHERA)
30057	WRGW 9-12-07	MCE 25	960	Asbestos TEM (AHERA)
30058	WRGBLANK	MCE 25	—	Asbestos TEM (AHERA)

CHAIN OF CUSTODY

Relinquished by: (Signature) <u>Clayton A. Bock</u>	Date / Time <u>9/13/07 12:17 PM</u>	Received by: (Signature) <u>[Signature]</u>	Date / Time <u>9/13/07 5:36 PM</u>
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

4388 Glendale Milford Road / Cincinnati, OH 45242 • 800-458-1493 or 513-733-5336 / Fax: 513-733-5347

DISTRIBUTION:

WHITE - LABORATORY COPY

CANARY - CUSTOMER COPY

DCL Set ID No.: 07-T-5206
DCL Sample No.: 07-30055
Client Sample No.: WRGM(4) 91207
QC Required: Ver-S

8 :Total Openings Read

NAF Total & Types: 1 Fe-M-Si

KEY: ID: ND=None Detected NAF=Non-Asbestos Fibers

A1, A2, etc.=designated asbestos structures, N1, N2, etc.=designated non-asbestos fibers

SAED: CD=Chrysotile AD=Amphibole N=Non-Asbestos O=None

Species: C=Chrysotile G=Grunerite(amosite) R=Riebeckite(Crocidolite)

T=Tremolite-Actinolite A=Anthophyllite

Structures: f=fiber b=bundle c=cluster m=matrix

Analyst [Signature] Date 9/14/07 Reviewer [Signature] Date 9/18/07

DCL Set ID No.: 07-T-5200
DCL Sample No.: 07-30056
Client Sample No.: WRG E91207
QC Required: NA

8 :Total Openings Read

NAF Total & Types: 2 Fe-Ca-Mg-Al-Si, cell

KEY: ID: ND=None Detected NAF=Non-Asbestos Fibers

A1, A2, etc.=designated asbestos structures, N1, N2, etc.=designated non-asbestos fibers

SAED: CD=Chrysotile AD=Amphibole N=Non-Asbestos O=None

Species: C=Chrysotile G=Grunerite(amosite) R=Riebeckite(Crocidolite)

T=Tremolite-Actinolite A=Anthophyllite

Structures: f=fiber b=bundle c=cluster m=matrix

f	b	c	m	T<5	T≥5
G					C
					G
					R
					T
					A
Total				10	

Asbestos Structures Detected

Analyst

9/14/67
Date

Signature 5/18/07
Reviewer

DCL Set ID No.: 07-T-5200
DCL Sample No.: 07-30057
Client Sample No.: WRG-W91207
QC Required: NA

8 :Total Openings Read

NAF Total & Types: 110

KEY: ID: ND=None Detected NAF=Non-Asbestos Fibers

A1, A2, etc.=designated asbestos structures, N1, N2, etc.=designated non-asbestos fibers

SAED: CD=Chrysotile AD=Amphibole N=Non-Asbestos O=None

Species: C=Chrysotile G=Grunerite(amosite) R=Riebeckite(Crocidolite)

T=Tremolite-Actinolite A=Anthophyllite

Structures: ~~f~~-fiber b=bundle c=cluster m=matrix

f	b	c	m	T<5	T≥5
0					
					0
Total				140	

Asbestos Structures Detected

Date _____

DATAChem LABORATORIES
TEM AHRA ANALYSIS

DCL Set ID No.: 07-T-5200
DCL Sample No.: 07-30058
Client Sample No.: WRG Blank
QC Required: NA

			MAG: 15,900X 1 cm = 0.63 μm														ASBESTOS STRUCTURES						size (μm)		
Grid & Opening		ID	SAED	Screen Size (cm)		Actual Size (μm)		EDXA														NOTES			
				D	L	D	L	Na	Mg	Si	Ca	Fe	Al	S	f	b	c	m	<5	≥5					
A	R2	ND																							
	Y2																								
	52																								
	42																								
	X2	↓																							
B	R1	ND																							
	Y1																								
	51																								
	41																								
	X1	↓																							

10 : Total Openings Read

NAF Total & Types: NO

KEY: ID: ND=None Detected NAF=Non-Asbestos Fibers

A1, A2, etc.=designated asbestos structures, N1, N2, etc.=designated non-asbestos fibers

SAED: CD=Chrysotile AD=Amphibole N=Non-Asbestos O=None

Species: C=Chrysotile G=Grunerite(amosite) R=Riebeckite(Crocidolite)

T=Tremolite-Actinolite A=Anthophyllite

Structures: f=fiber b=bundle c=cluster m=matrix

f	b	c	m	T<5	T≥5	
0						C
						G
						R
						T
						A
Total						NO

**Asbestos Structures
Detected**

Analyst

Date

Reviewer

Date